

**REMARKS:**

The Office Action dated July 29, 2004, has been carefully considered. In response thereto, the present application has been amended in a manner that is believed to place it into condition for allowance. Accordingly, reconsideration and withdrawal of the outstanding rejections and issuance of a Notice of Allowance are respectfully requested.

**Summary of the Office Action**

Claims 1-24, 26, 27, 29, and 30 are pending in the application (claims 25 and 28 having been cancelled in the previous paper submitted by Applicants). Claims 1, 22, and 26 are the only independent claims. In the Office Action, the Examiner has rejected claims 1-12 and 15-30 [*sic*: should be 15-24, 26, 27, 29, and 30] pursuant to 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,513,395 to *Jones* in view of U.S. Patent No. 4,206,374 to *Goddijn*, and has rejected claims 13 and 14 as being unpatentable over the *Jones* patent in view of the *Goddijn* patent and further in view of U.S. Patent No. 4,379,598 to *Goldowsky*. The following remarks are believed to address each of those rejections.

**Rejection of Claims 1-12, 15-24, 26, 27, 29, and 30:**

The Examiner has rejected claims 1-12, 15-24, 26, 27, 29, and 30, pursuant to 35 U.S.C. § 103(a), as being unpatentable over the *Jones* patent in view of the *Goddijn* patent. For the reasons noted below, Applicant respectfully disagrees with the Examiner's rejection of those claims.

First, with regard to independent claim 1, the Examiner contends that the *Jones* patent does not teach the at least one region of permanent magnetization being "predominantly axially magnetized," as recited in claim 1, but that the *Goddijn* patent teaches at least one region of permanent magnetization that is predominantly axially magnetized. The Examiner contends that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the *Jones* patent to include a predominantly axially magnetized region of permanent magnetization as taught by the *Goddijn* patent to "accurately enhance the measuring possibilities of the torque transducer."

Applicant respectfully disagrees with the Examiner's contention. To establish a *prima facie* case of obviousness, it must be established that one of ordinary skill in the art would have been motivated at the time of the present invention to modify the substantially circumferential magnetization of the disk 10 disclosed in the *Jones* patent so that it has a substantially axial magnetization. In the *Goddijn* patent, the axially magnetized structure 14 is used to magnetically couple two motor stator systems with the same polarity of magnetic field. This would not lead one skilled in the art to conclude that using a predominantly axially magnetized region would improve a magnetic field sensor transfer function (i.e., the relationship between the observed magnetic field changes and the output voltage signal from the sensor). In fact, nowhere in the *Goddijn* patent is it even suggested that the magnetic structure 14 bears a load or stress like the disk 10 disclosed in the *Jones* patent, or that its magnetization is altered in any way by the presence of a load or stress as required by the disk 10 disclosed in the *Jones* patent.

Thus, Applicant submits that there is not motivation to combine the *Jones* and *Goddijn* patents to come up with the invention recited in independent claim 1. See *Akamai Techs., Inc. v. Cable & Wireless Internet Svs., Inc.*, 68 USPQ 2d 1186, 1193 (Fed. Cir. 2003) ("when determining the patentability of a claimed invention which combines two known elements, the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.") (citations and internal quotations omitted); *Ruiz v. A.B. Chance Co.*, 69 USPQ 2d 1686, 1690-91 (Fed. Cir. 2004) (finding motivation to combine two references proper where they each addressed precisely the same problem as the claimed invention).

Accordingly, Applicant submits that the Examiner has not established, with regard to claim 1, a *prima facie* case of obviousness based on the *Jones* and *Goddijn* patents. Since claims 2-21 depend from claim 1, Applicant submits that the Examiner has not established a *prima facie* case of obviousness with respect to those claims either. Reconsideration and withdrawal of the § 103(a) rejection of claims 1-21 is respectfully requested.

Applicant submits that the same arguments apply with regard to independent claim 22, which also recites the "predominantly axially magnetised" language like in claim 1. Accordingly, reconsideration and withdrawal of the § 103(a) rejection of claim 22, and claims 23 and 24 which depend from claim 22, is respectfully requested.

Applicant also submits that the same arguments apply with regard to independent claim 26, which also recites the “predominantly axially magnetised” language like in claim 1. Accordingly, reconsideration and withdrawal of the § 103(a) rejection of claim 26, and claims 27, 29, and 30 which depend from claim 26, is respectfully requested.

**Rejection of Claims 13 and 14:**

The Examiner has rejected claims 13 and 14, pursuant to 35 U.S.C. § 103(a), as being unpatentable over the ‘395 patent in view of the ‘374 and ‘598 patents. For the reasons noted below, Applicant respectfully disagrees with the Examiner’s rejection of those claims.

The Examiner contends that the combination of the *Jones* and *Goddijn* patents do not teach a single region of magnetization extending obliquely to an axis, as recited in claim 13, but that the *Goldowsky* patent teaches a single region of magnetization extending obliquely to an axis. The Examiner contends that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the *Jones* and *Goddijn* patents to include a single region of magnetization extending obliquely to an axis as taught by the *Goldowsky* patent to have larger diameters at one end than the other to resist axial forces (citing *Goldowsky*, col. 1, lines 35-40).

Applicant respectfully disagrees with the Examiner’s contention. Since claim 13 depends from claim 1, to establish a *prima facie* case of obviousness, it must be established that one of ordinary skill in the art would have been motivated at the time of the present invention to modify the substantially circumferential magnetization of the disk 10 disclosed in the *Jones* patent so that it has a substantially axial magnetization. As noted above, Applicant submits that there is not motivation to combine the *Jones* and *Goddijn* patents to come up with the invention recited in independent claim 1 having the substantially axial magnetization element.

In addition, Applicant respectfully submits that a person of ordinary skill in the art would not have been motivated to combine the *Goldowsky* disclosure with the combination of the *Jones* and *Goddijn* patent for other reasons. For example, the *Goldowsky* patent teaches the use of permanent magnet rings in bearing systems. As with the *Goddijn* patent, the magnetized region disclosed in the *Goldowsky* patent is not in a load path. Hence, there is no load or stress present that would serve to alter the magnetic field. The selection of the

oblique angle is predicated on the desired ratio of axial vs. radial loading on the shaft, but that alone would not lead one skilled in the art at the time of the present invention to conclude that using an oblique angle would improve a torque sensor transfer function in a load- or force-transmitting system.

Accordingly, Applicant submits that the Examiner has not established, with regard to claim 13, a *prima facie* case of obviousness based on the *Jones*, *Goddijn*, and *Goldowsky* patents. Since claim 14 depend from claim 13, Applicant submits that the Examiner has not established a *prima facie* case of obviousness with respect to that claims either.

Reconsideration and withdrawal of the § 103(a) rejection of claims 13 and 14 is respectfully requested.